

Supporting Information

Activated carbon supported hafnium(IV) chloride as an efficient, recyclable, and facile removable catalyst for expeditious parallel synthesis of benzimidazoles

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^1H NMR and ^{13}C NMR spectra of new compounds

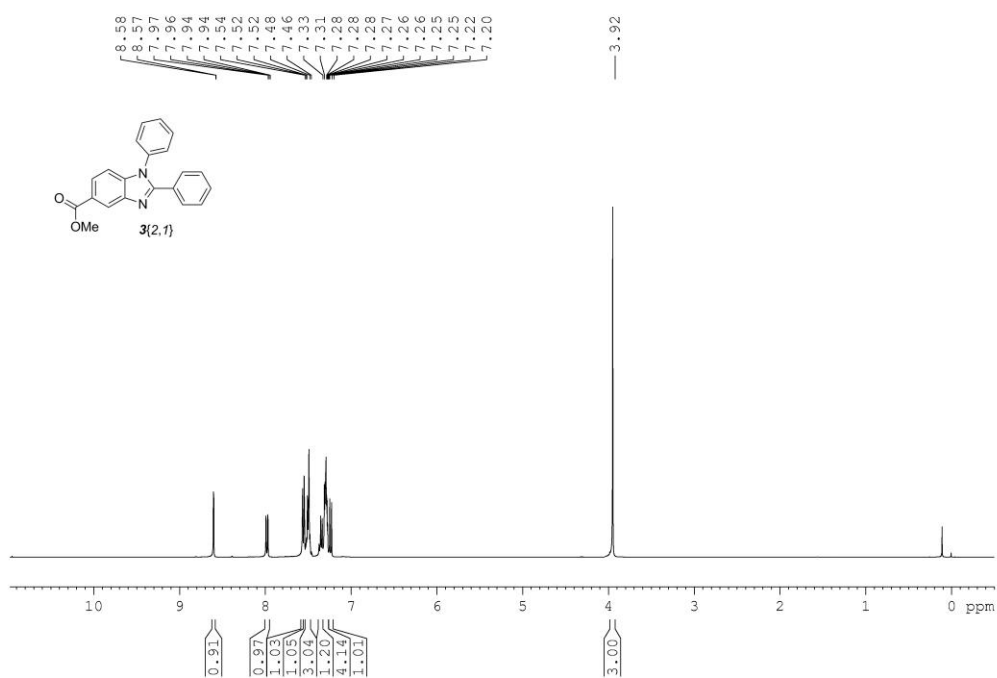


Figure S1. ^1H NMR Spectrum of **3{2,1}**

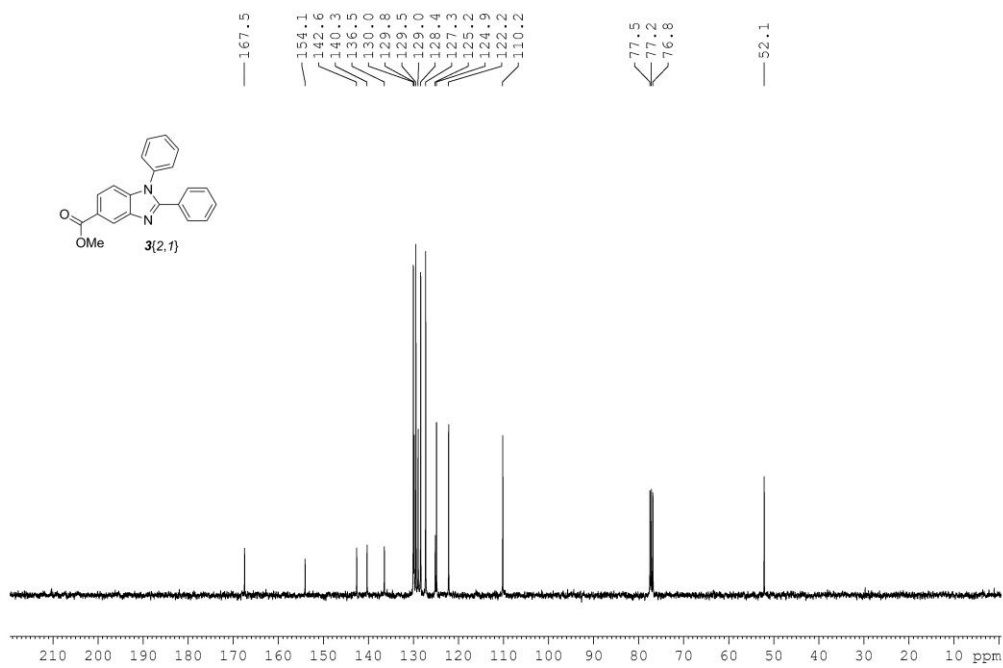


Figure S2. ^{13}C NMR Spectrum of **3{2,1}**

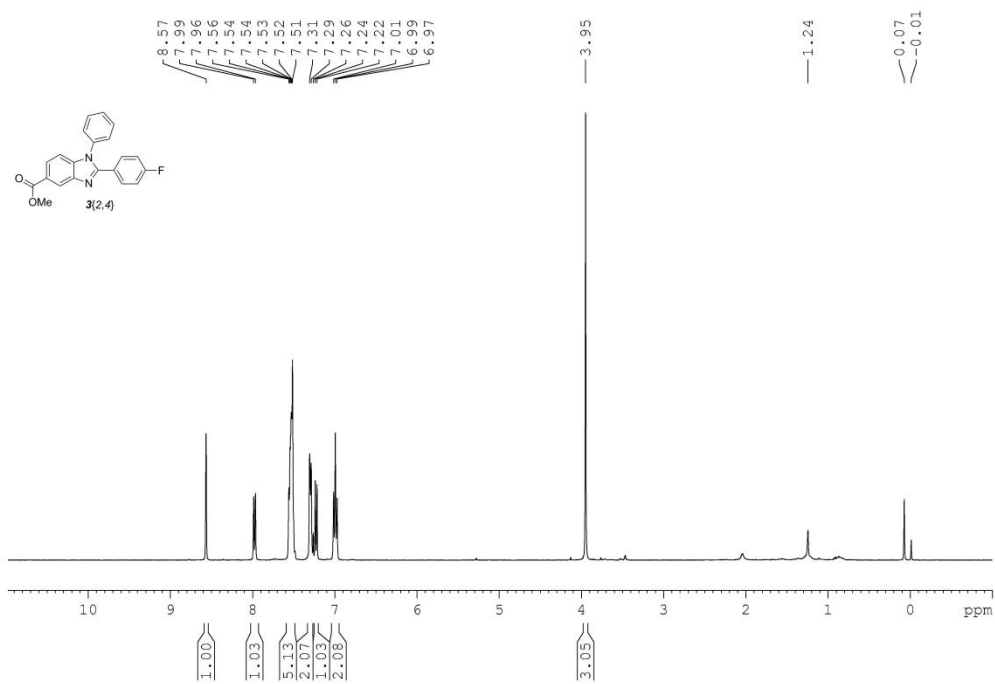


Figure S3. ^1H NMR Spectrum of **3{2,4}**

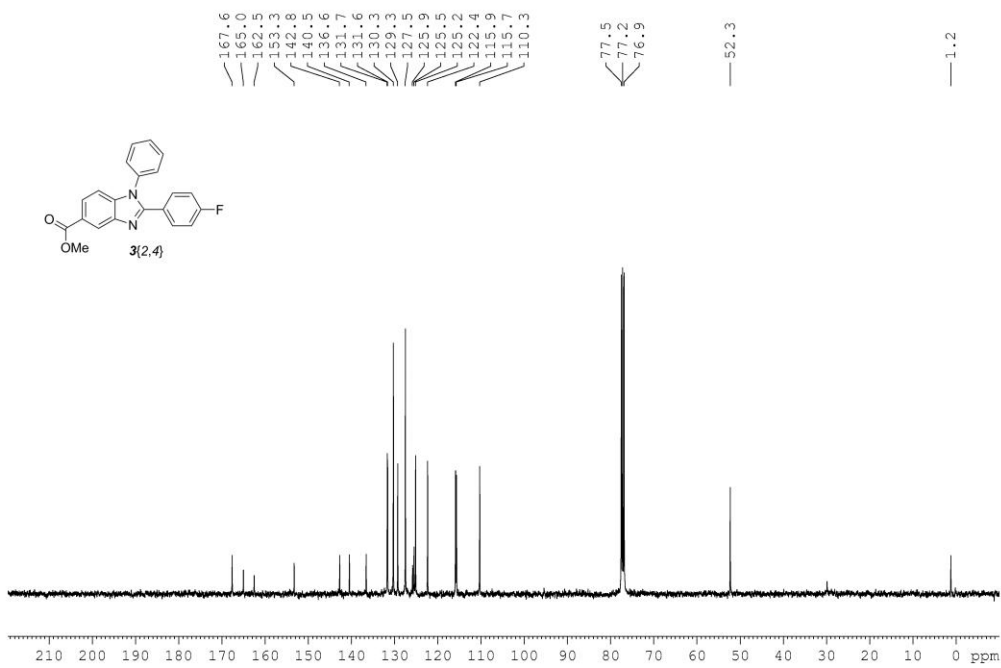


Figure S4. ^{13}C NMR Spectrum of **3{2,4}**

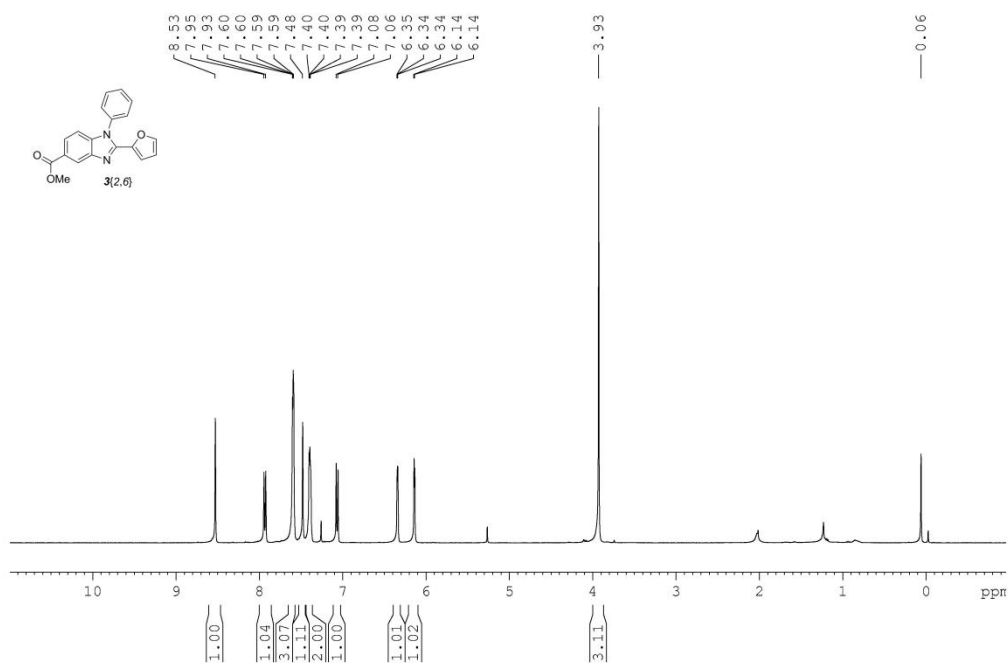


Figure S5. ¹H NMR Spectrum of **3{2,6}**

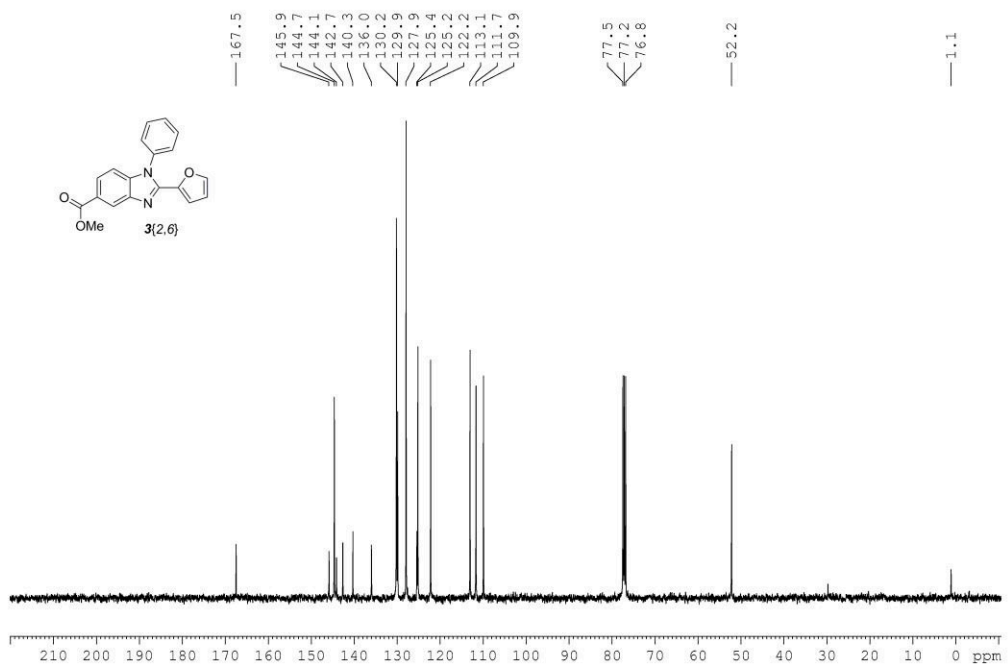


Figure S6. ¹³C NMR Spectrum of **3{2,6}**

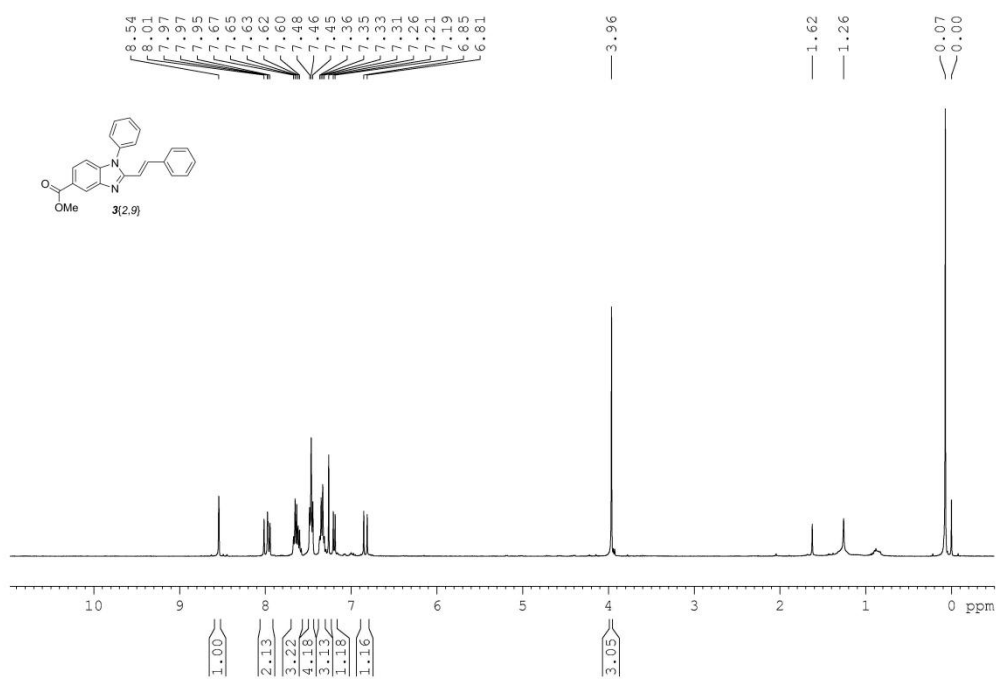


Figure S7. ¹H NMR Spectrum of **3{2,9}**

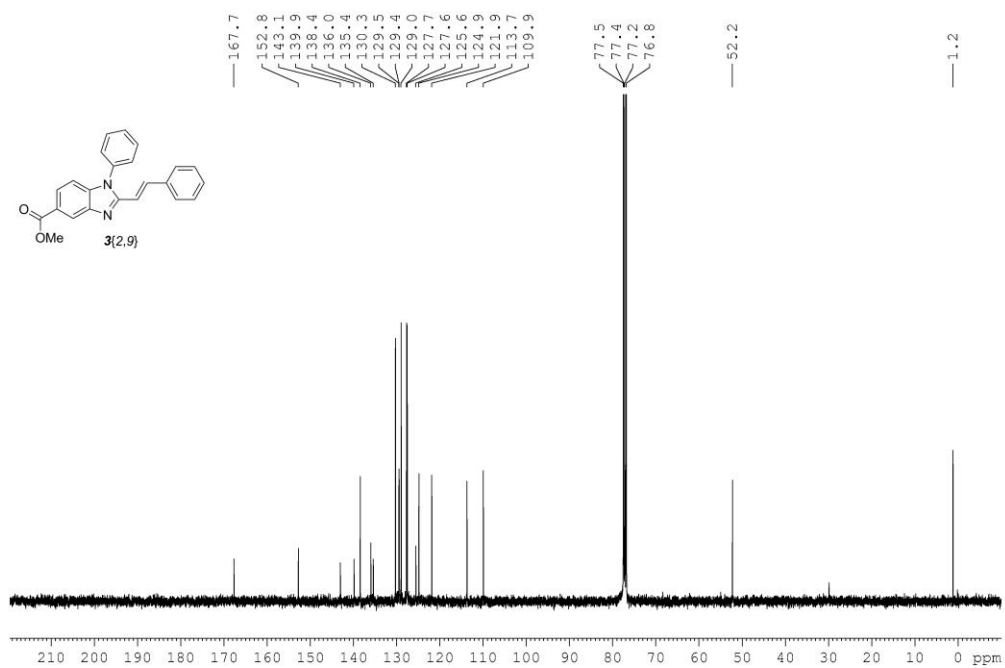


Figure S8. ¹³C NMR Spectrum of **3{2,9}**

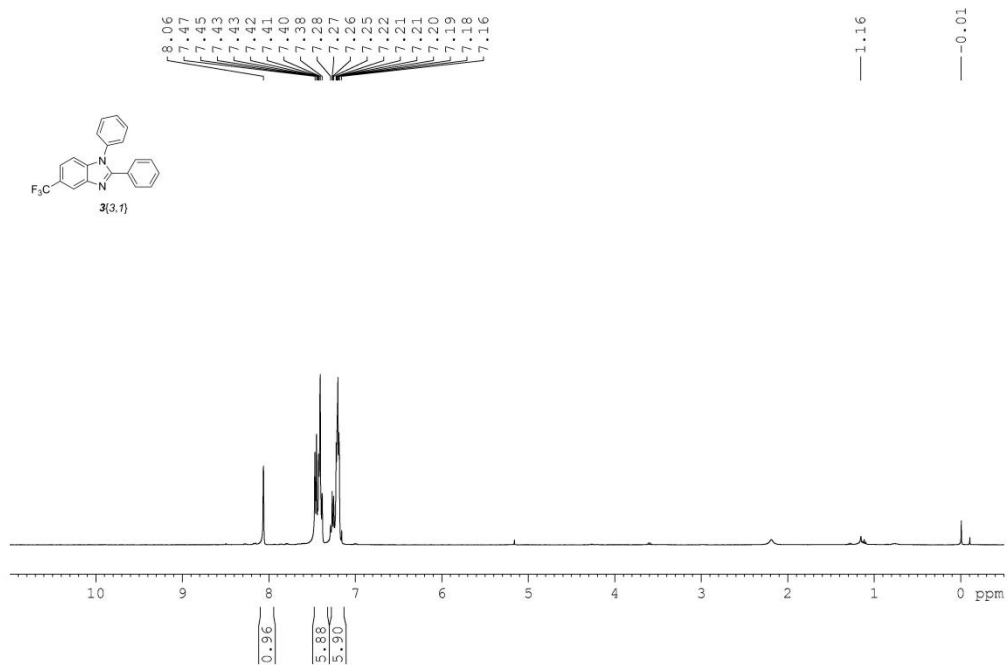


Figure S9. ¹H NMR Spectrum of **3{3,1}**

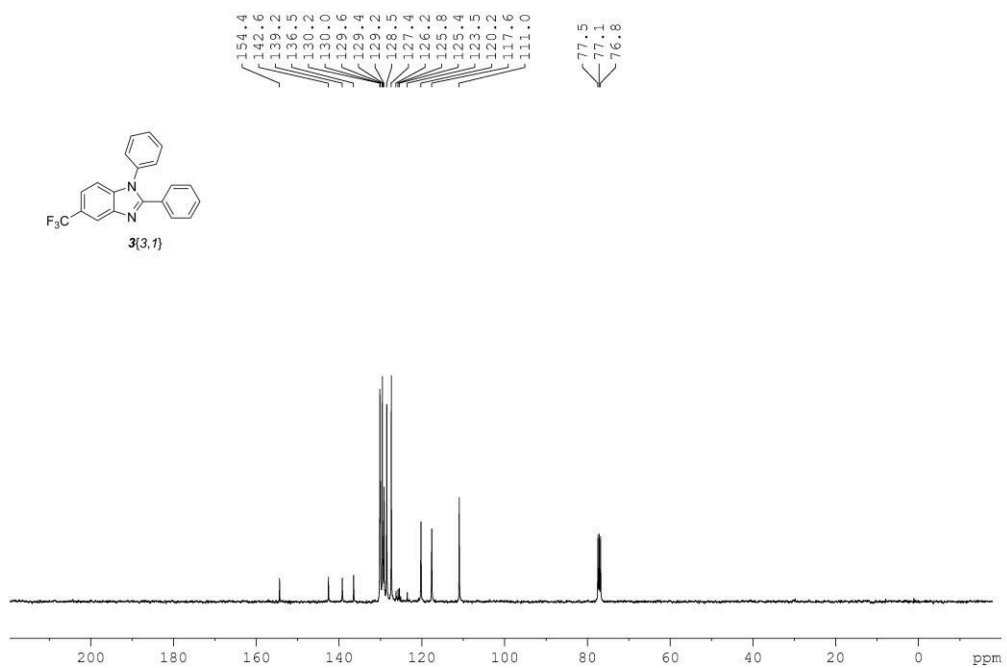


Figure S10. ¹³C NMR Spectrum of **3{3,1}**

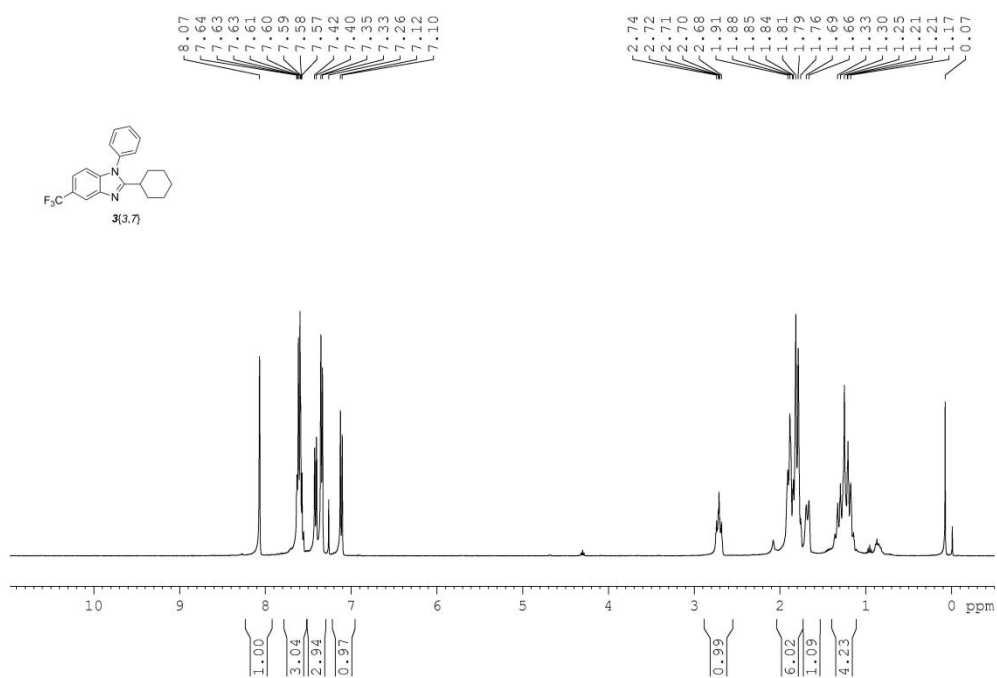


Figure S11. ¹H NMR Spectrum of **3{3,7}**

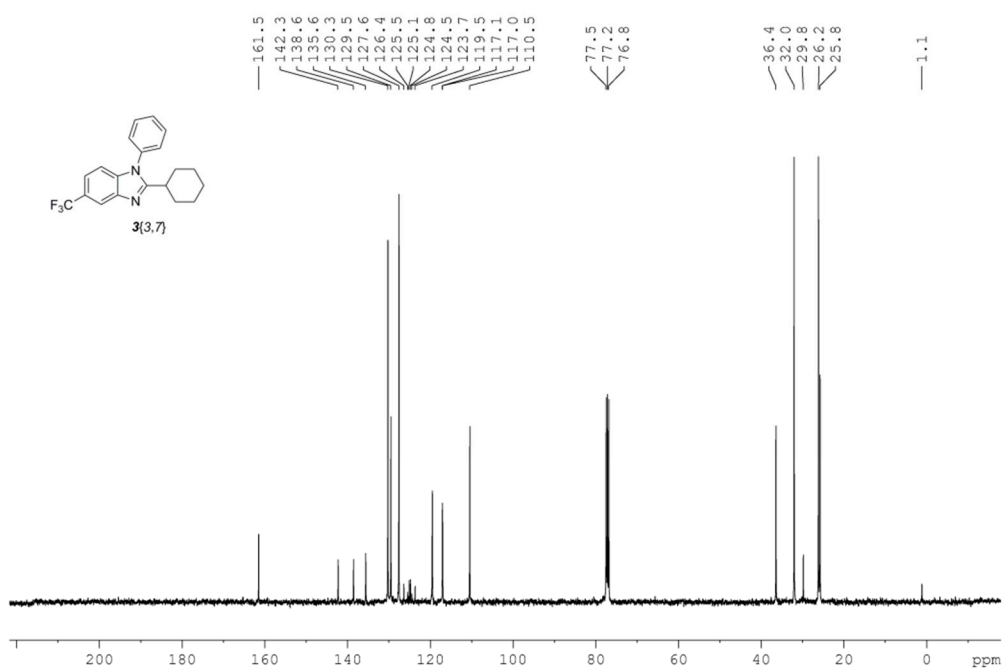


Figure S12. ¹³C NMR Spectrum of **3{3,7}**

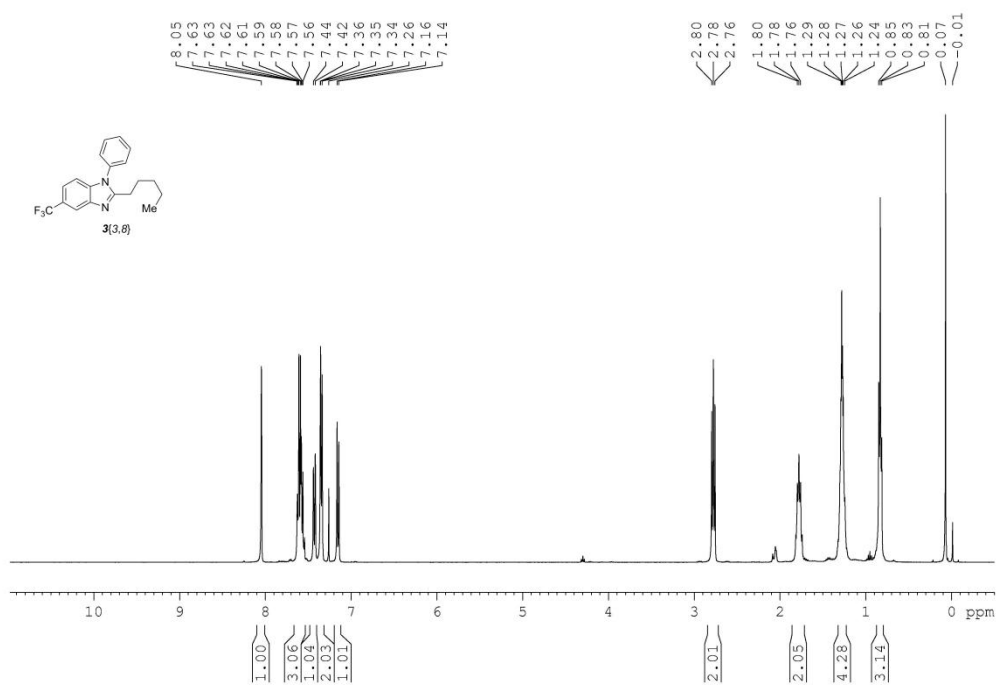


Figure S13. ¹H NMR Spectrum of **3{3,8}**

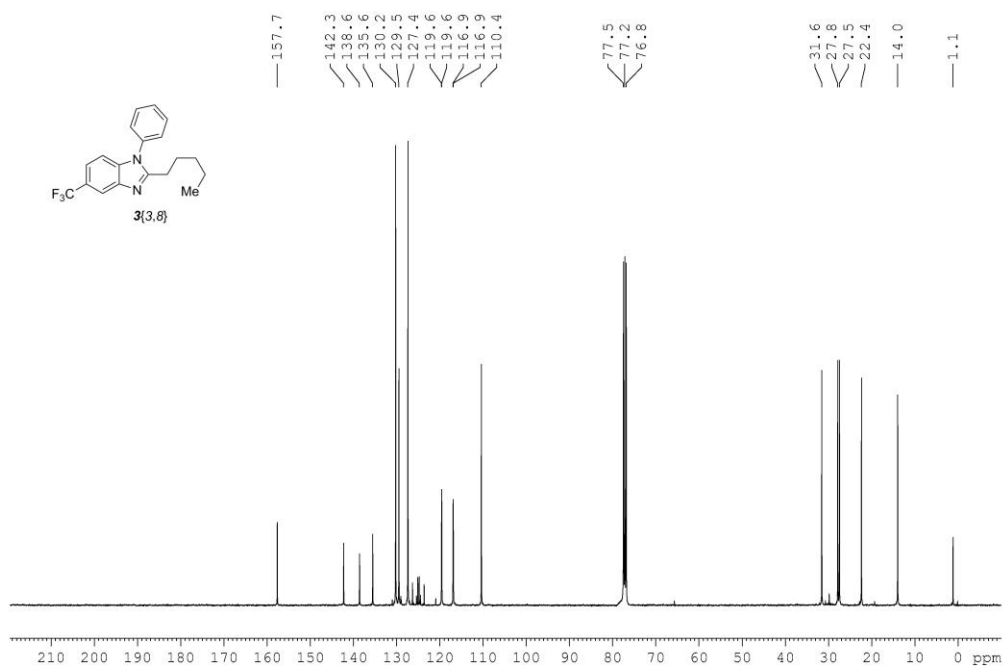


Figure S14. ¹³C NMR Spectrum of **3{3,8}**

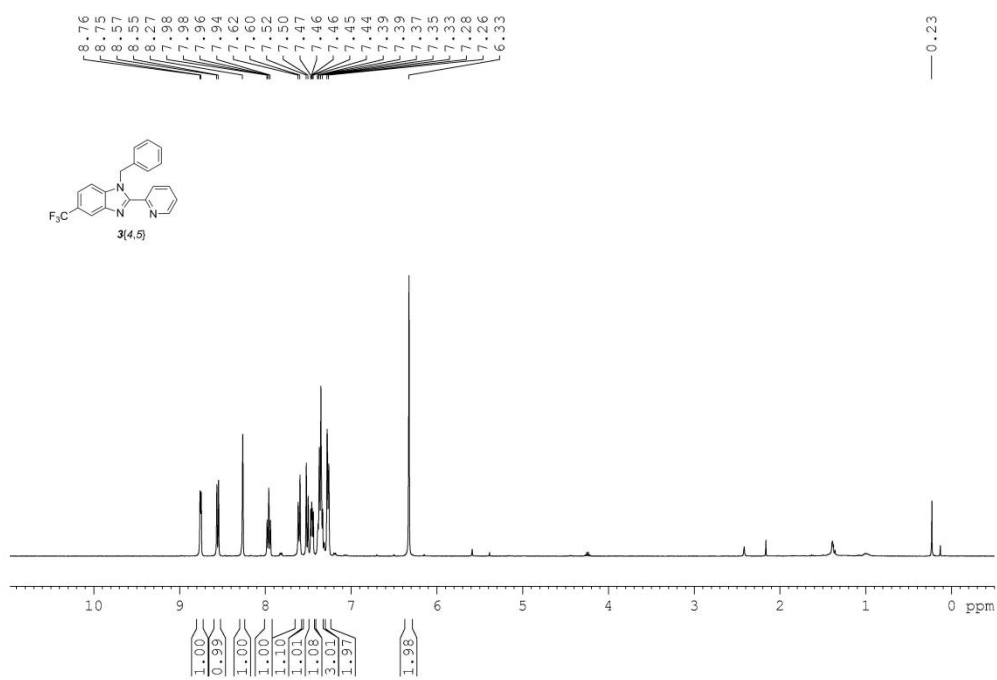


Figure S15. ¹H NMR Spectrum of 3{4,5}

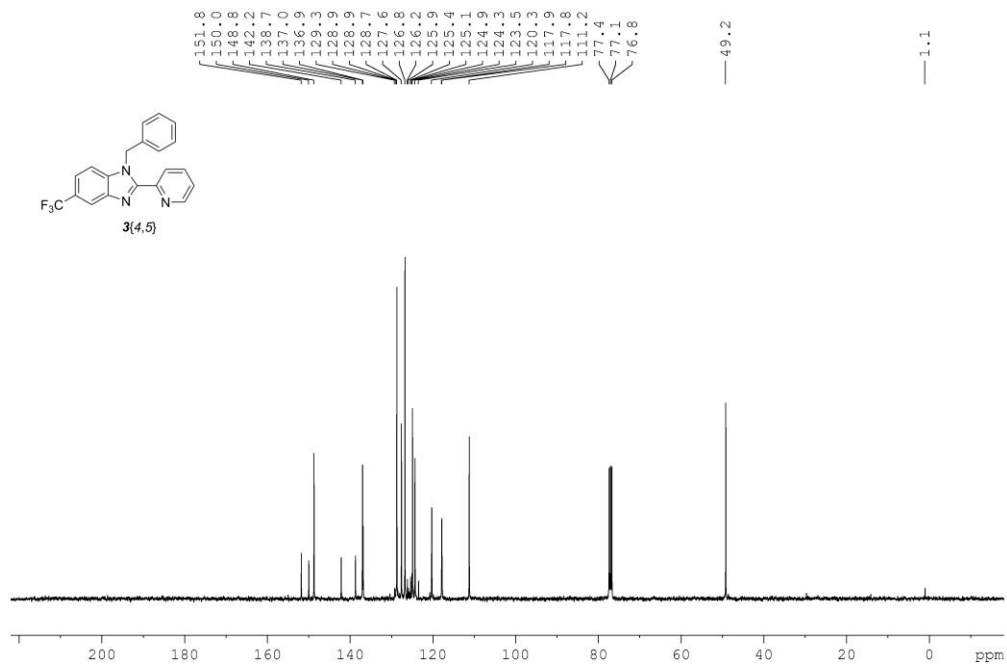


Figure S16. ¹³C NMR Spectrum of 3{4,5}

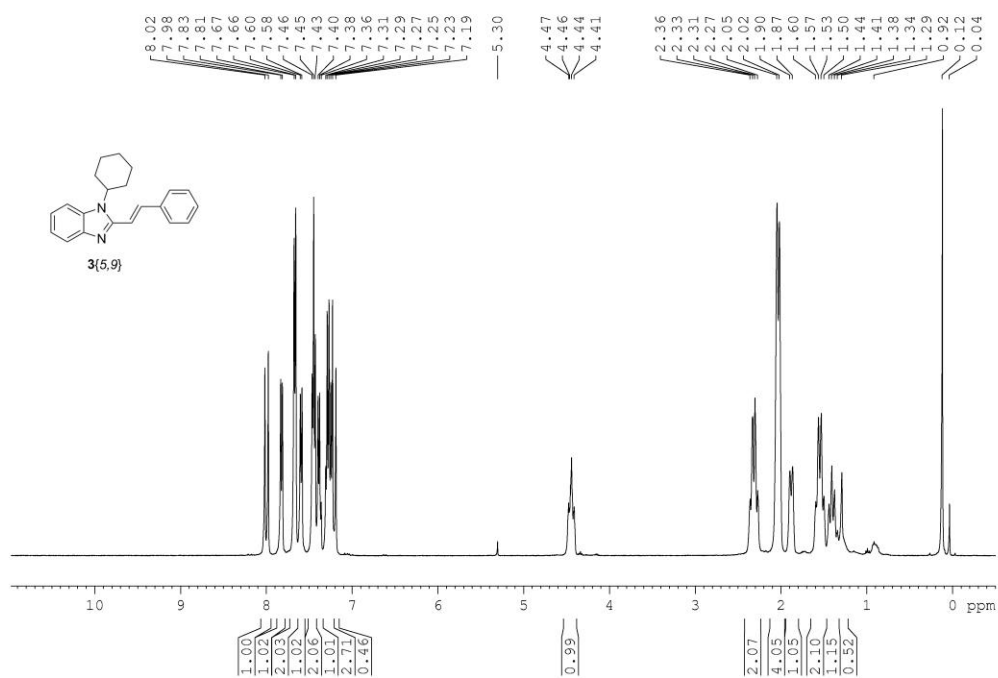


Figure S17. ¹H NMR Spectrum of **3{5,9}**

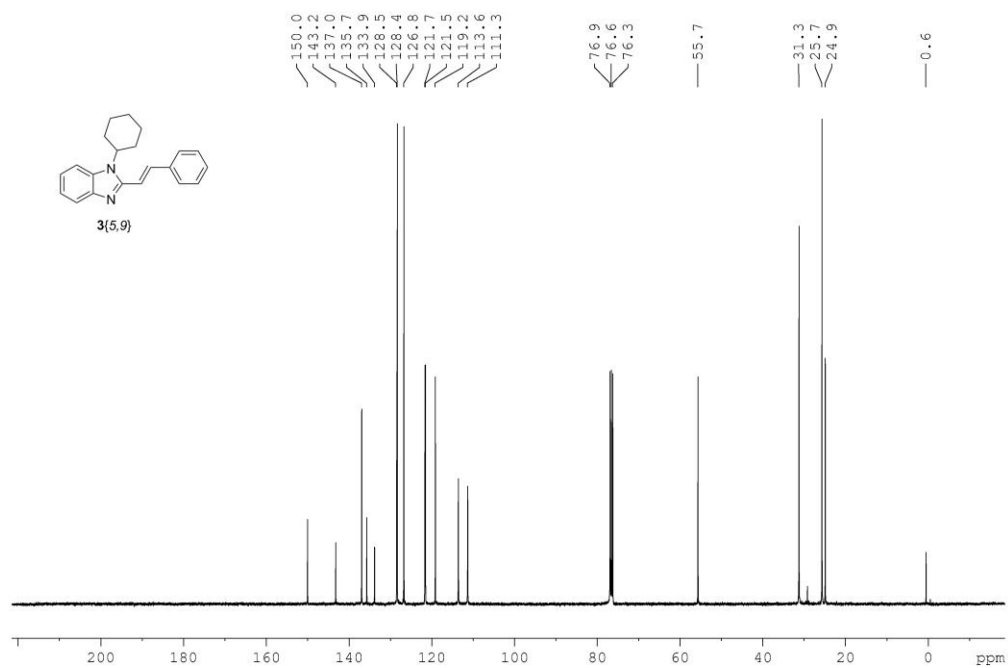


Figure S18. ¹³C NMR Spectrum of **3{5,9}**

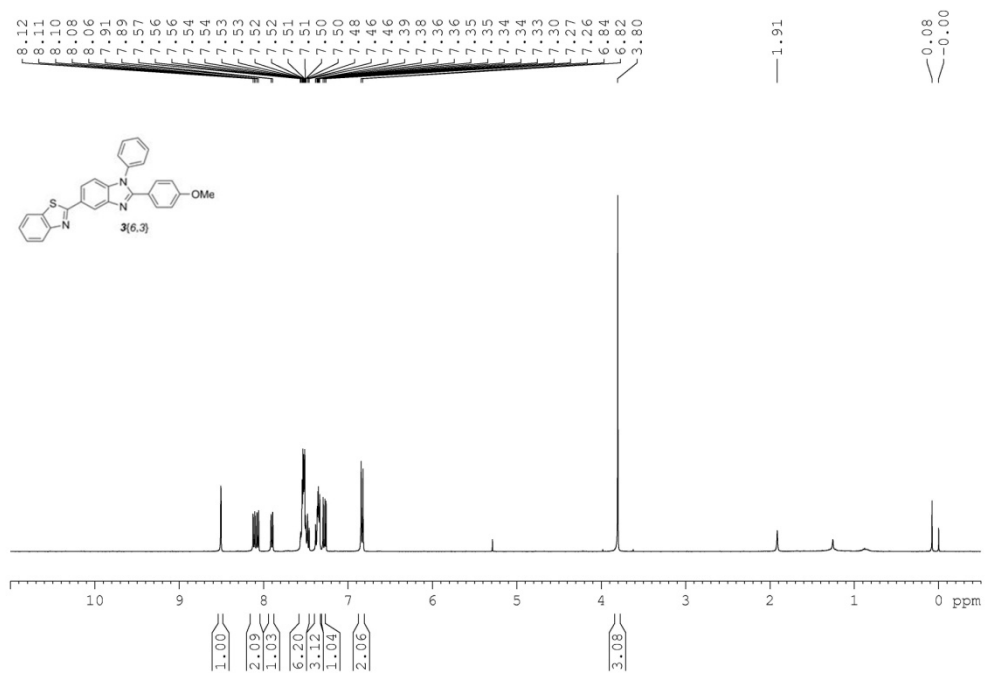


Figure S19. ¹H NMR Spectrum of **3{6,3}**

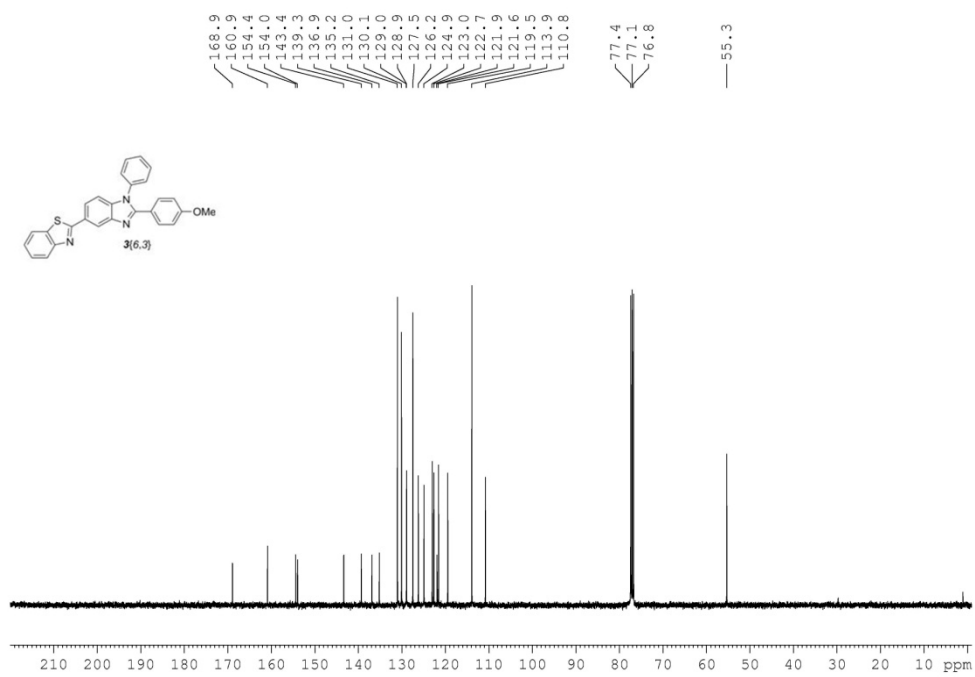


Figure S20. ¹³C NMR Spectrum of **3{6,3}**

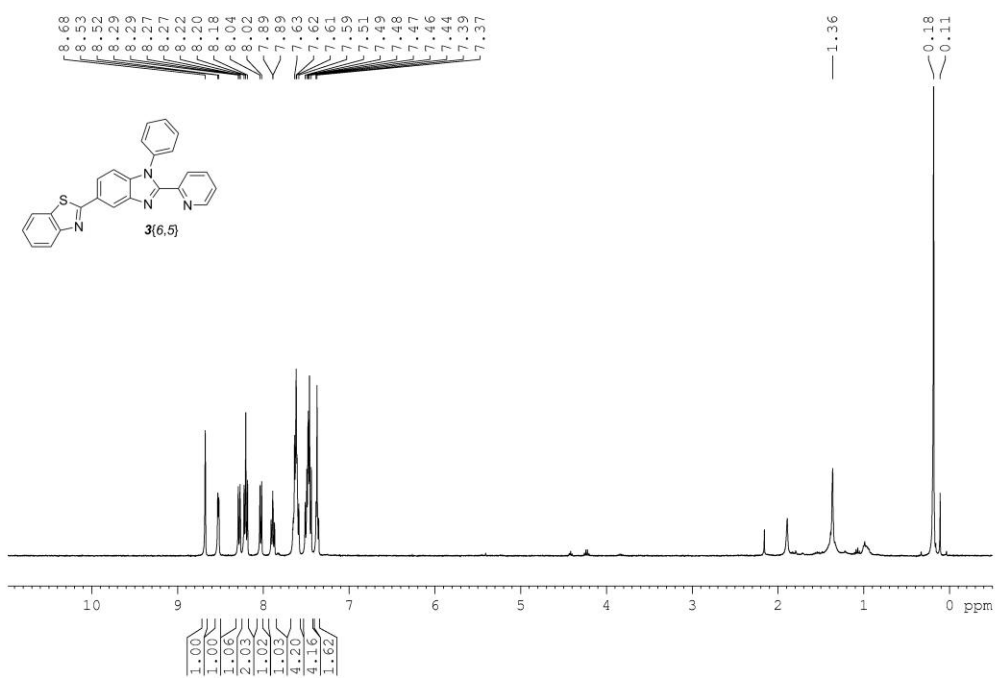


Figure S21. ¹H NMR Spectrum of **3{6,5}**

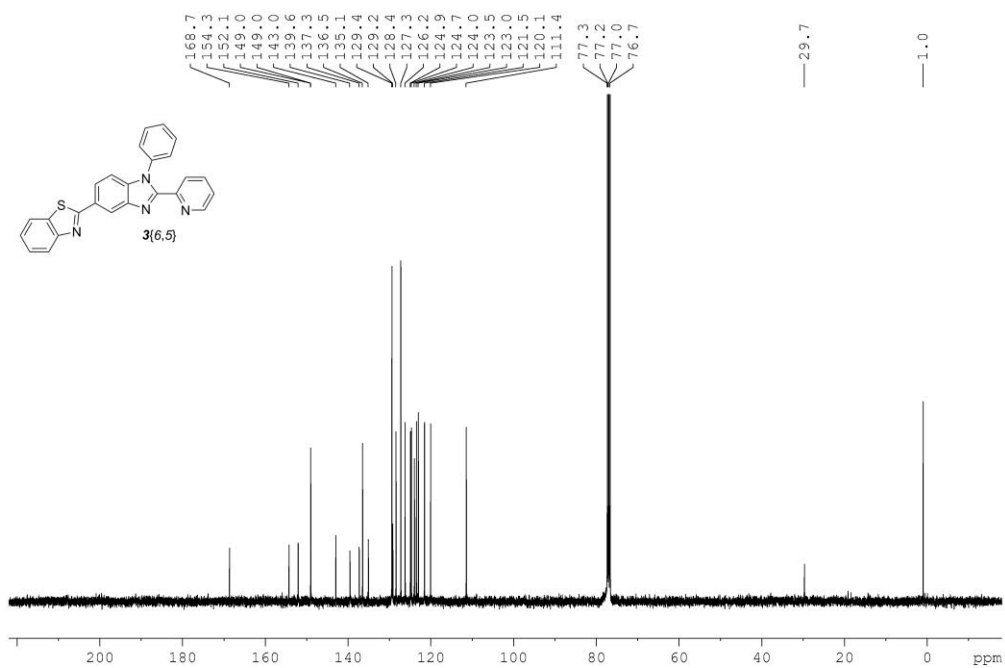


Figure S22. ¹³C NMR Spectrum of **3{6,5}**

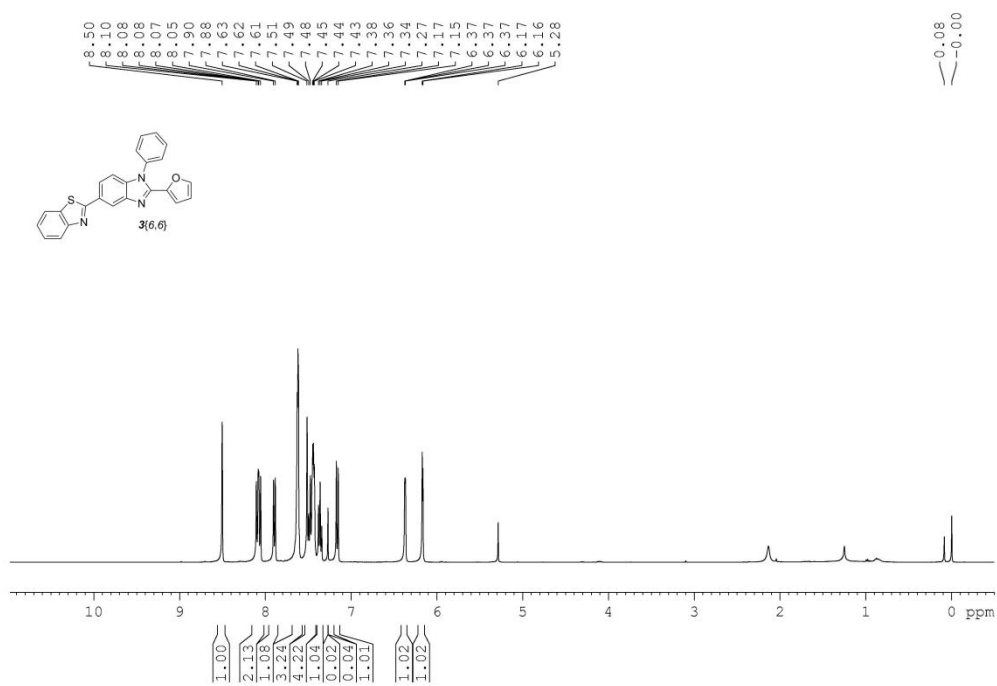


Figure S23. ^1H NMR Spectrum of 3{6,6}

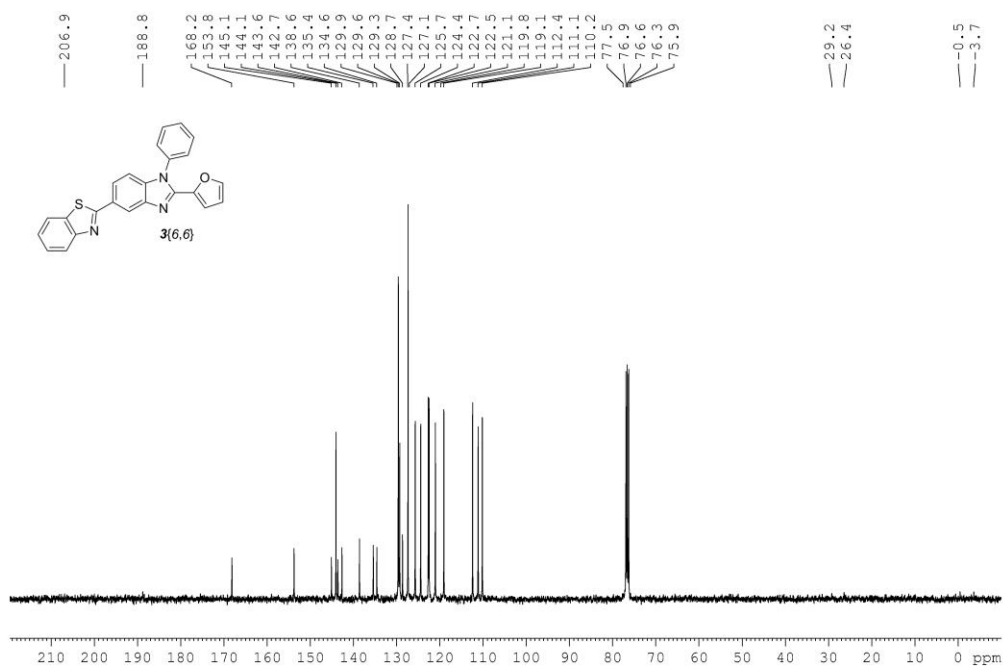


Figure S24. ^{13}C NMR Spectrum of 3{6,6}

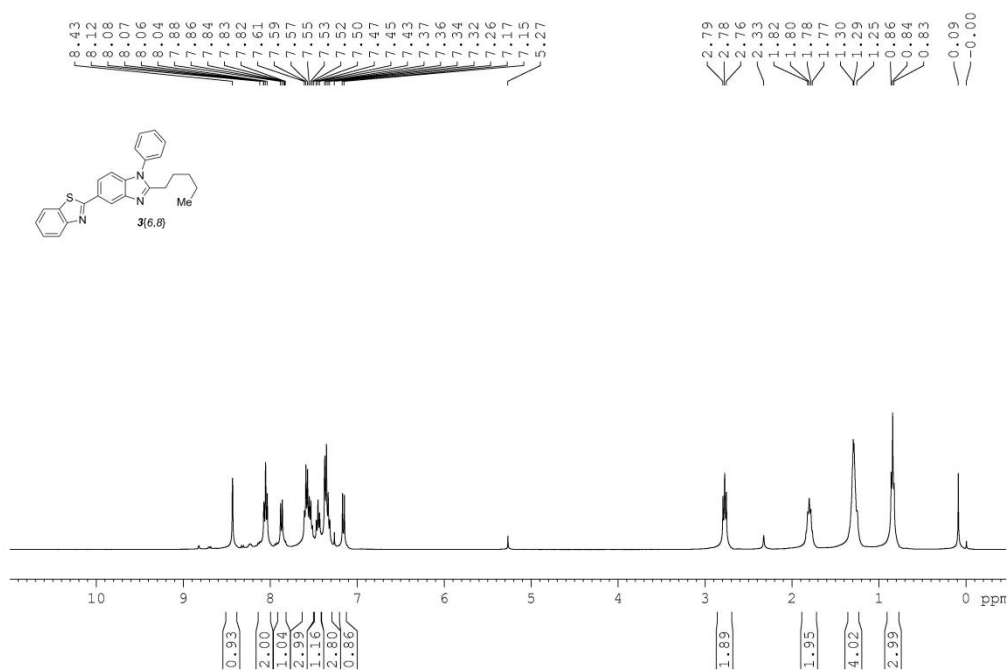


Figure S25. ^1H NMR Spectrum of **3{6,8}**

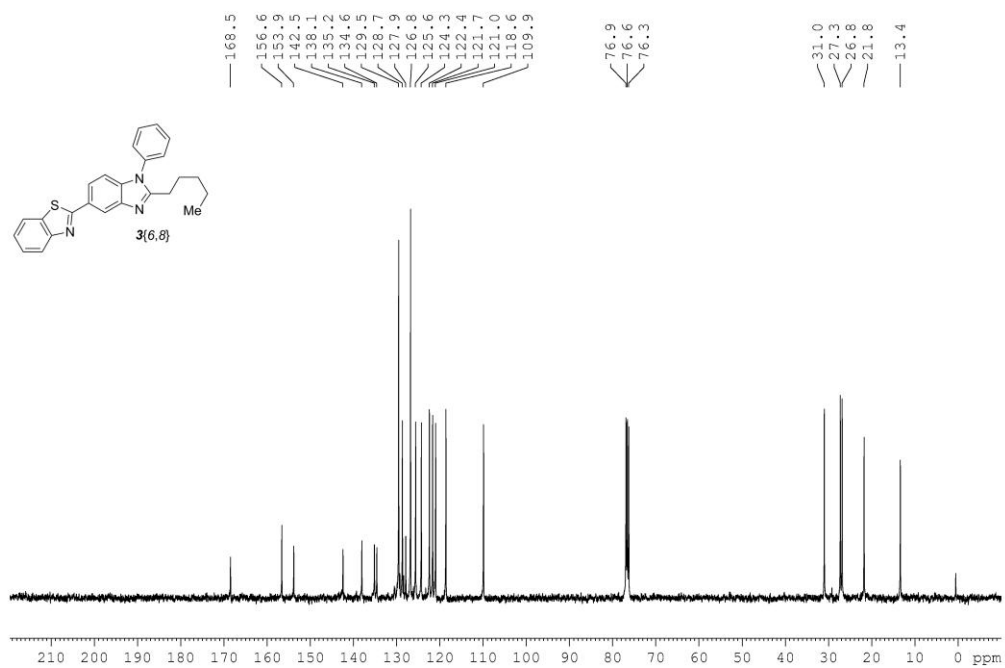


Figure S26. ^{13}C NMR Spectrum of **3{6,8}**

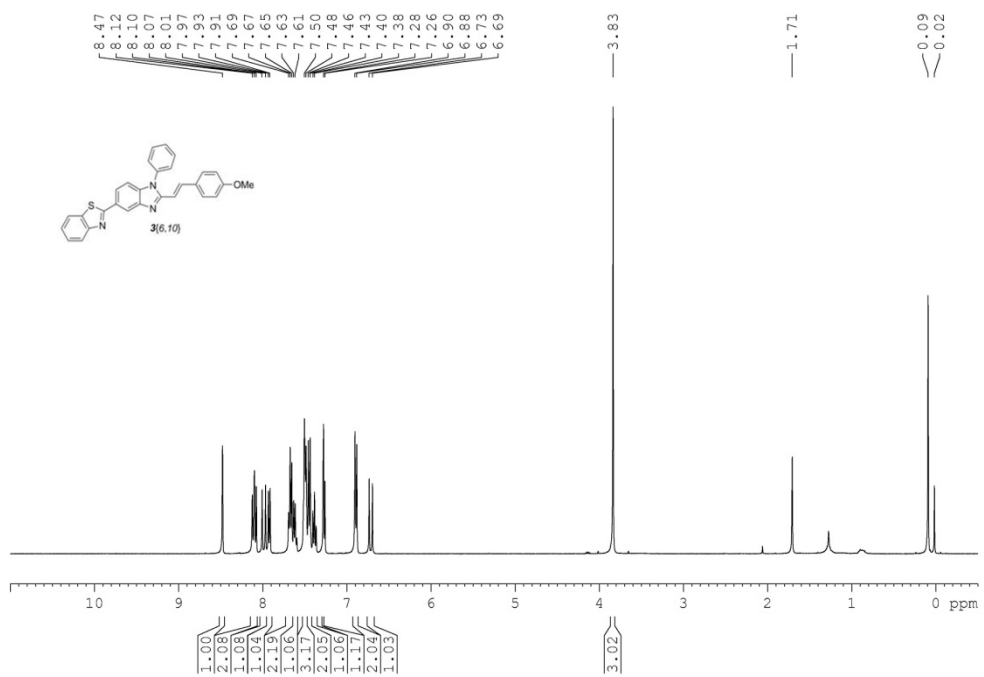


Figure S27. ¹H NMR Spectrum of **3{6,10}**

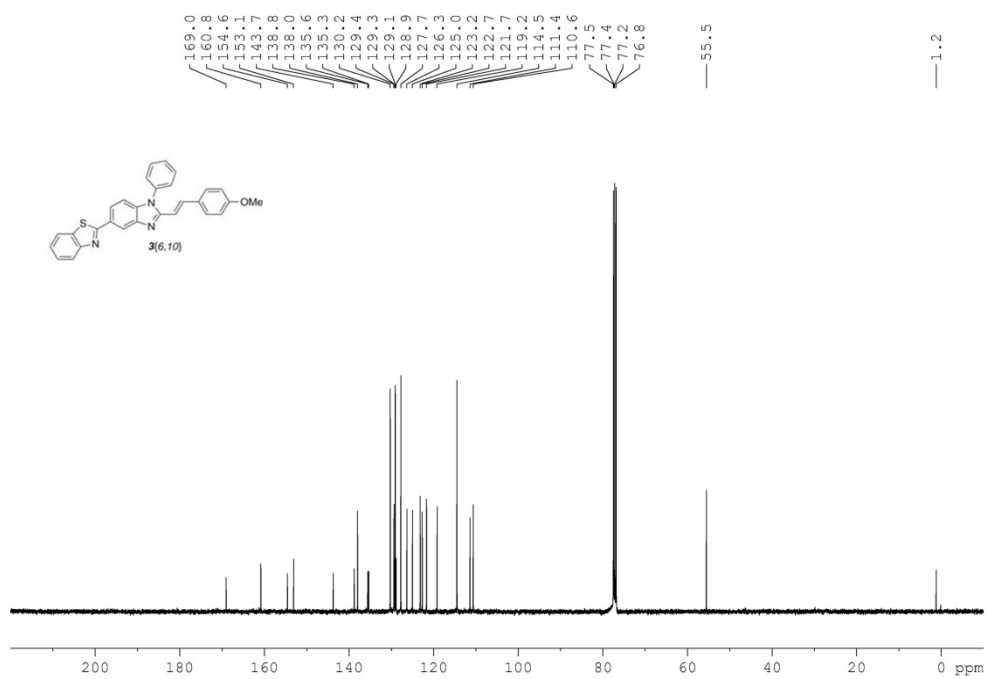


Figure S28. ¹³C NMR Spectrum of **3{6,10}**

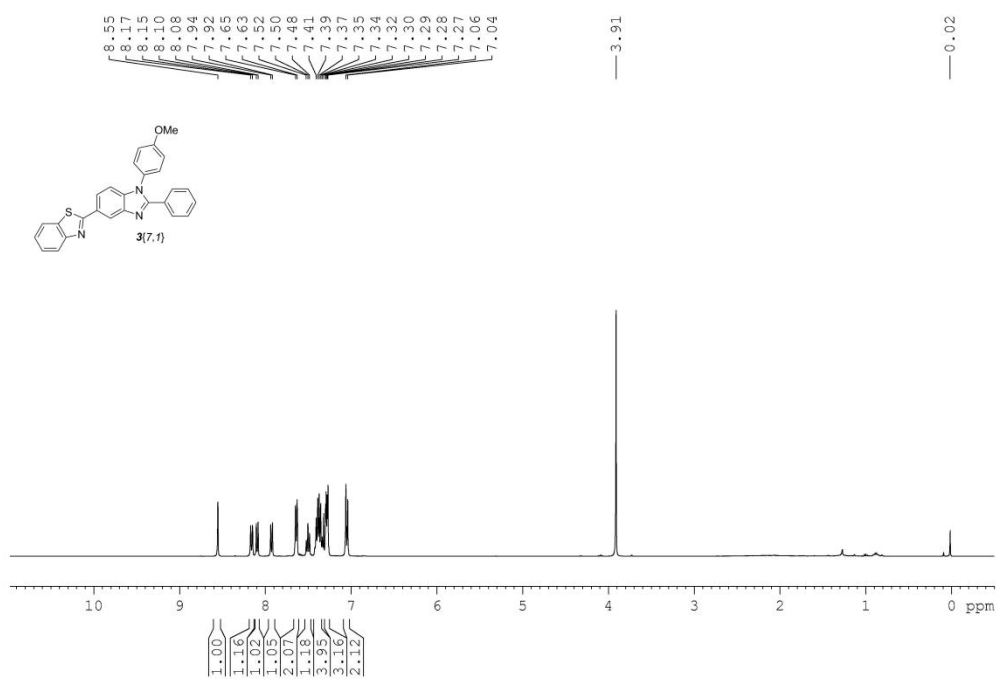


Figure S29. ¹H NMR Spectrum of **3{7,1}**

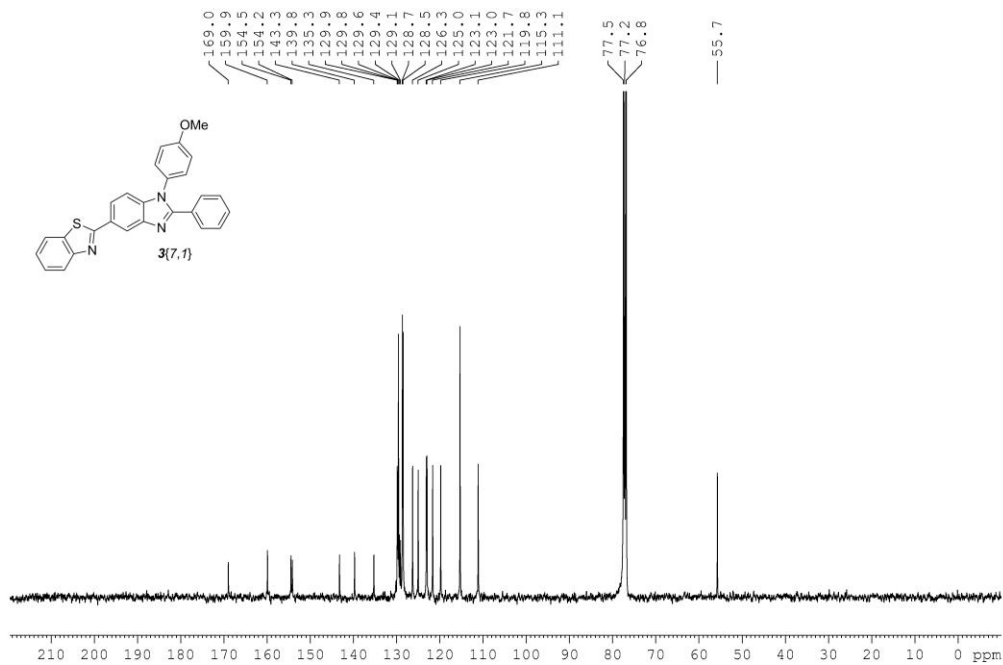


Figure S30. ¹³C NMR Spectrum of **3{7,1}**

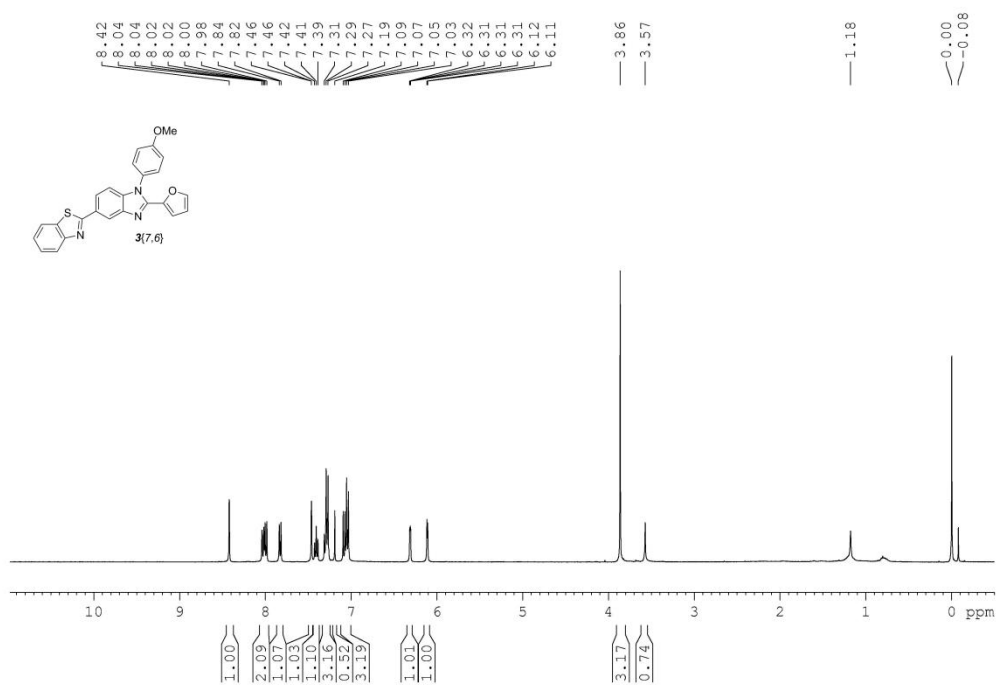


Figure S31. ¹H NMR Spectrum of **3{7,6}**

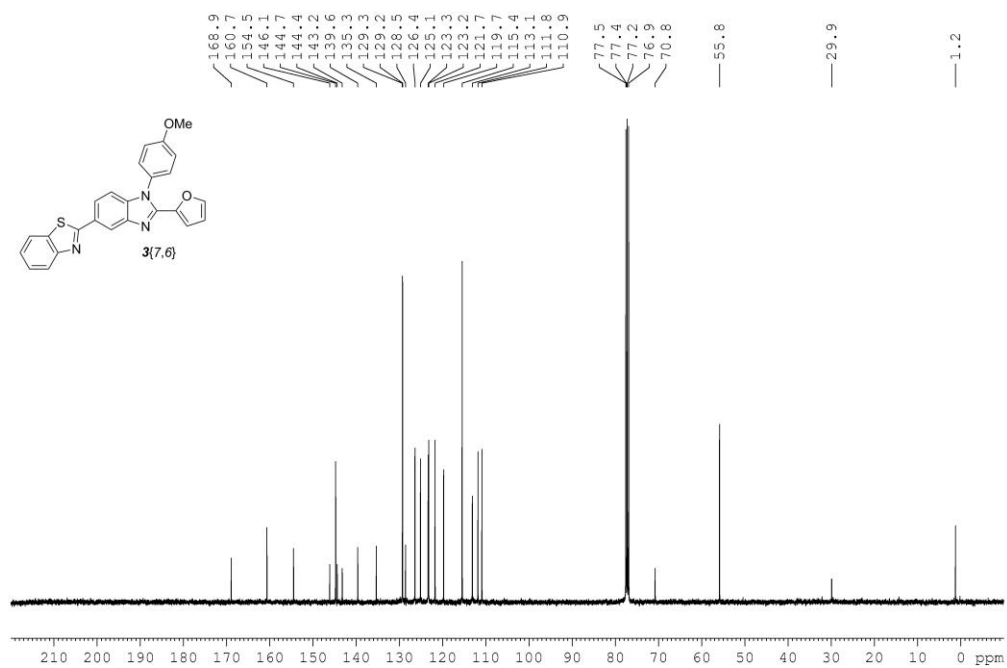


Figure S32. ¹³C NMR Spectrum of **3{7,6}**

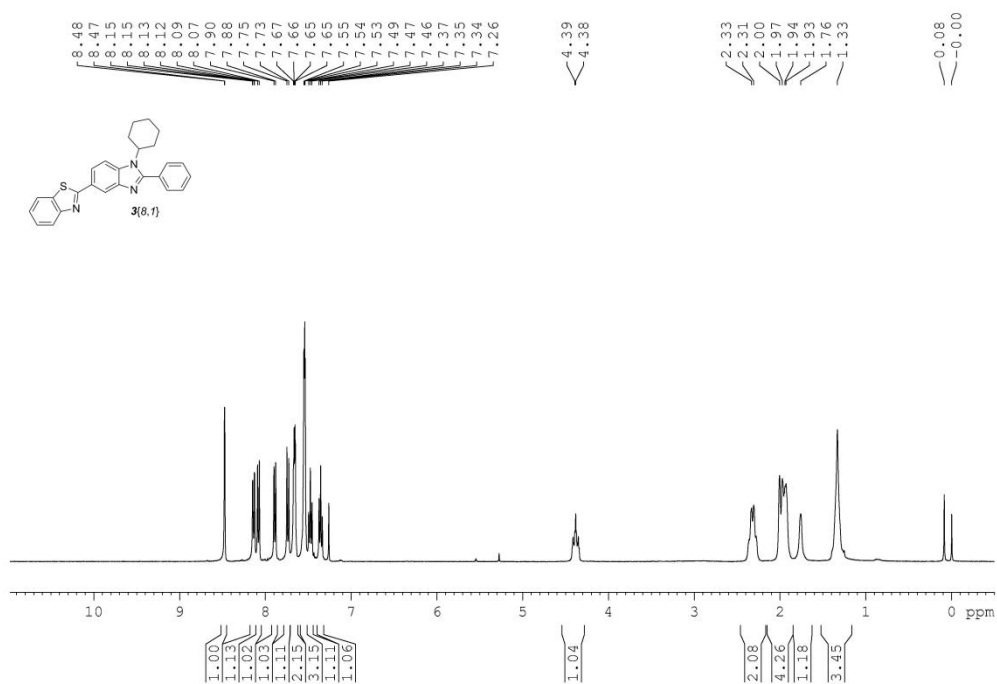


Figure S35. ¹H NMR Spectrum of **3{8,1}**

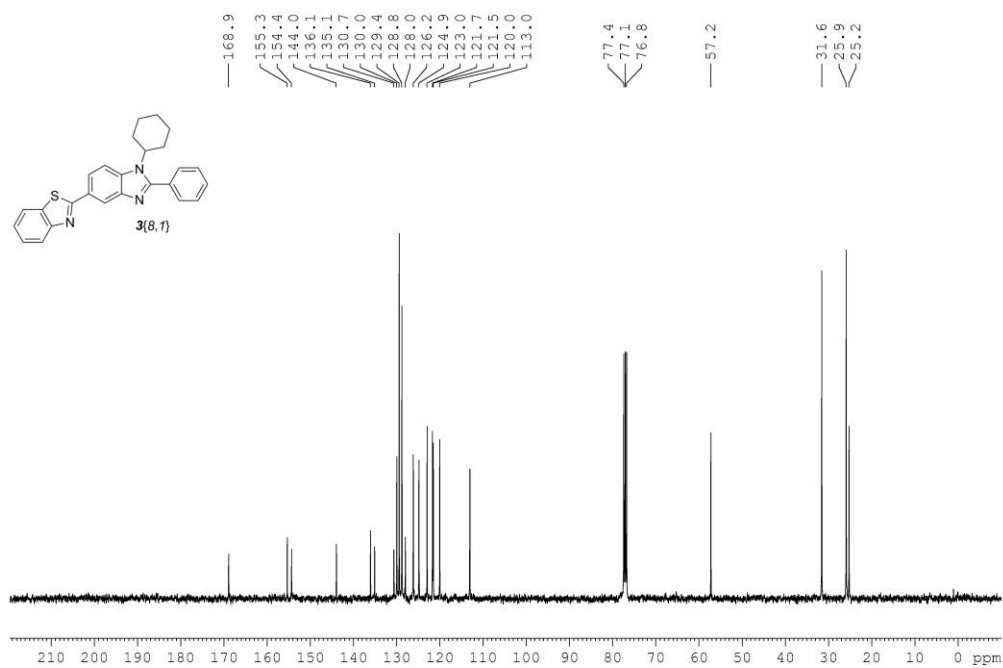


Figure S36. ¹³C NMR Spectrum of **3{8,1}**

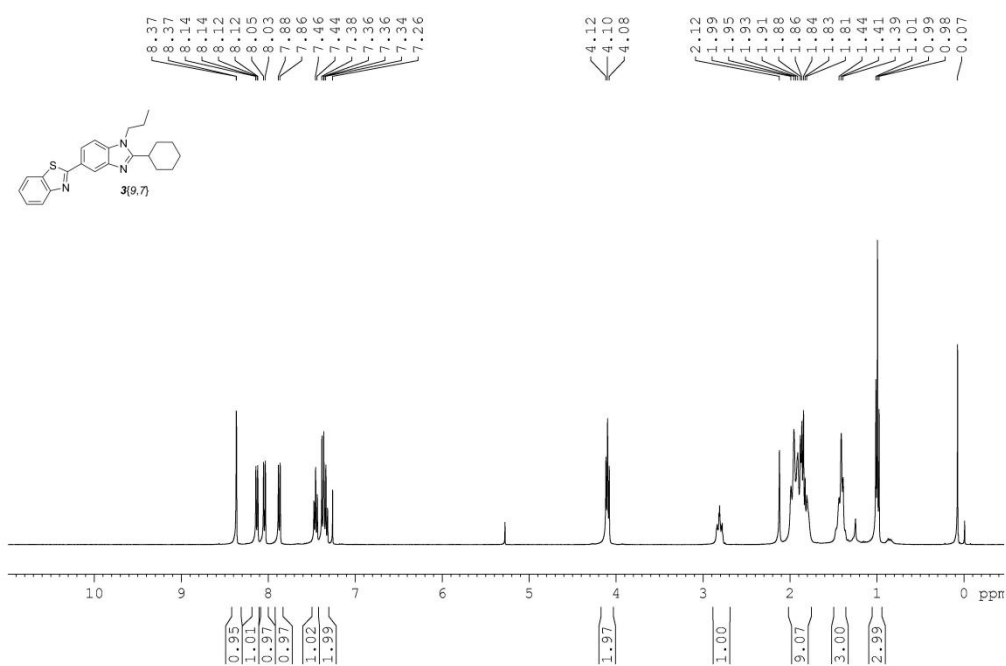


Figure S37. ¹H NMR Spectrum of **3{9,7}**

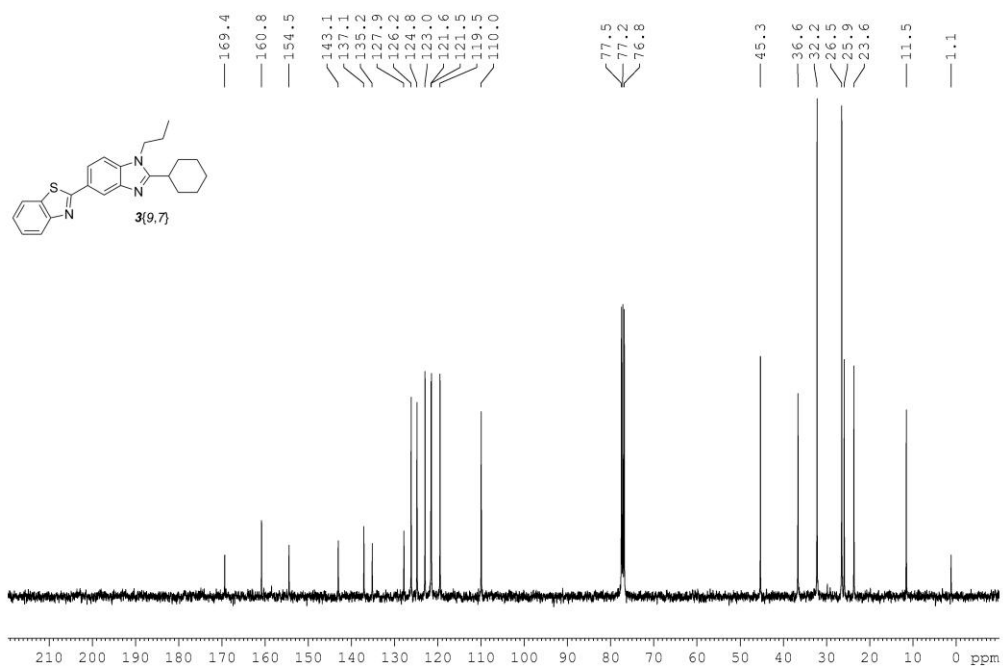


Figure S38. ¹³C NMR Spectrum of **3{9,7}**